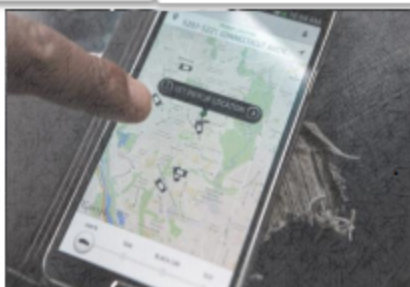


- ABSTRACT -

社區電召服務之可持續性發展: 提高載客量並不需要增加車輛

Sustainable Development for Community Dial-a-ride Services: Driving more People without more Vehicles



This research aims at developing sustainable strategies for non-profit transportation organisations to provide dial-a-ride (DAR) services for people with disabilities through the optimisation of revenue and resource management. As an on-demand, door-to-door transport service that requires advanced booking, DAR's utilisation rate is usually low compared with the scheduled route services, and this operation characteristic creates a relatively high ratio of subsidy per person. To address this issue by optimising the resource management, we will study the service options of vehicle pooling arrangements in DAR operations. Through optimisation models, we will identify the relationships among discount rates, passenger tolerance of traveling time and vehicle utilisation rates for the new vehicle scheduling sustainable strategies. Such results are expected for the transportation organisations to serve more people without the demand of additional vehicles.